CLAIMS:

1. A beam hardening post-processing method comprising the steps of:

obtaining one sinogram by acquiring first projection information of a phantom disposed at a position offset from an imaging center of an imaged region by imaging said phantom in a plurality of views from multiple directions;

generating second projection information by performing beam hardening effect correction on said first projection information;

generating third projection information by performing first function fitting on said second projection information;

performing second function fitting on values of said third projection information using values of said second projection information in all said views as an independent variable for each channel constituting said second projection information; and

correcting projection information of a subject disposed in said imaged region using a corrective function determined by said second function fitting.

2. A beam hardening post-processing method comprising the steps of:

obtaining a plurality of sinograms by acquiring first projection information of a plurality of phantoms having different sizes disposed at a position offset from an imaging center of an imaged region by imaging each phantom in a plurality of views from multiple directions;

generating second projection information by performing beam hardening effect correction on said first projection information;

generating third projection information by performing first function fitting on said second projection information;

performing second function fitting on values of said third projection information using values of said second projection information in all said views

and in all said sinograms as an independent variable for each channel constituting said second projection information; and

correcting projection information of a subject disposed in said imaged region using a corrective function determined by said second function fitting.

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3.   An X-ray CT apparatus for acquiring projection information of an X-ray beam passing through an imaged region using an X-ray detector comprising multiple channels in a plurality of views from multiple directions, and performing beam hardening effect correction on said projection information,

10   comprising:

an obtaining device for obtaining one sinogram by acquiring first projection information of a phantom disposed at a position offset from an imaging center of said imaged region by imaging said phantom in all said views;

a beam hardening correcting device for generating second projection

15   information by performing said beam hardening effect correction on said first projection information;

a first fitting device for generating third projection information by performing first function fitting on said second projection information;

a second fitting device for determining a corrective function by performing

20   second function fitting on values of said third projection information using values of said second projection information in all said views as an independent variable for each channel constituting said second projection information; and

a correcting device for correcting projection information of a subject disposed in said imaged region using said corrective function.

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4.   The X-ray CT apparatus of claim 3, wherein said phantom has a circular cross-sectional shape.

5.   The X-ray CT apparatus of claim 4, wherein said cross-sectional

30   shape has a diameter smaller than that of said imaged region.

6. The X-ray CT apparatus of claim 3, wherein said first function fitting is performed from channel to channel of said second projection information.

7. The X-ray CT apparatus of claim 3, wherein said first function fitting device performs said first function fitting from view to view of one sinogram containing a plurality of series of said second projection information.

8. The X-ray CT apparatus of claim 3, wherein said first function fitting device comprises averaging device for averaging the values of said second projection information.

9. The X-ray CT apparatus of claim 3, wherein said first function fitting device fits a higher-order function to the values of said second projection information.

10. The X-ray CT apparatus of claim 3, wherein said obtaining device obtains a plurality of said sinograms using a plurality of said phantoms having different diameters.

11. The X-ray CT apparatus of claim 10, wherein said beam hardening correcting device generates said second projection information by performing said beam hardening effect correction on said first projection information for each of said plurality of sinograms.

12. The X-ray CT apparatus of claim 11, wherein said first fitting device generates said third projection information by performing said first function fitting on said second projection information for each of said plurality of sinograms.

13. The X-ray CT apparatus of claim 12, wherein said second fitting device determines said corrective function of a first order for each said sinogram.

5   14. The X-ray CT apparatus of claim 13, wherein said second fitting device determines a higher-order corrective function by performing higher-order function fitting on said corrective functions of a first order.

15. The X-ray CT apparatus of claim 12, wherein said second fitting device determines the corrective function by performing function fitting on the values of said third projection information for all said sinograms.

16. The X-ray CT apparatus of claim 15, wherein said corrective function contains higher-order terms.